

## In the Claims

**1. (currently amended)** A process for forming a UV absorber layer~~[[s]]~~ on an inorganic or organic substrate, which process comprises

a) allowing a low-temperature plasma, a corona discharge or high-energy radiation to act on the inorganic or organic substrate,

b) applying to the treated inorganic or organic substrate at least one free-radical-forming initiator and at least one UV absorber containing at least one ethylenically unsaturated group, and, optionally in the form of melts, solutions, suspensions or emulsions, at least one synergist and/or at least one ethylenically unsaturated compound~~[[,]]~~ and

c) heating the coated substrate and/or irradiating it with electromagnetic waves.

**2. (original)** A process according to claim 1, wherein the substrate coated is in the form of a powder, a fibre, a felt, a woven fabric, a film or a moulding.

**3. (currently amended)** A process according to ~~either claim 1 or claim 2~~, wherein the substrate is or comprises a synthetic polymer, a natural polymer, a metal oxide, a glass, a semi-conductor, quartz or a metal~~[[, ]]~~ or comprises such a material.

**4. (currently amended)** A process according to claim 1 ~~any one of claims 1 to 3~~, wherein the substrate is or comprises a homopolymer, a block polymer, a graft polymer ~~and/or~~ a copolymer.

**5. (currently amended)** A process according to claim 1 ~~any one of the preceding claims~~, wherein the organic substrate is or comprises a polycarbonate, polyester, halogen-containing polymer, polyacrylate, polyolefin, polyamide, polyurethane, polystyrene ~~and/or~~ polyether.

**6. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, which comprises using as~~ where the initiator is a peroxide, peroxydicarbonate, persulfate, benzpinacol, dibenzyl, disulfide, an azo compound, a redox system, benzoin, benzil ketal, acetophenone, hydroxyalkylphenone, aminoalkylphenone, acylphosphine oxide, acylphosphine sulfide, acyloxyiminoketone, a peroxy compound, a halogenated acetophenone, phenyl glyoxylate, benzophenone, oxime, oxime ester, thioxanthone, ferrocene, titanocene, sulfonium salt, iodonium salt, diazonium salt, onium salt, borate, triazine, bisimidazole, polysilane ~~and/or~~ dye, there being present in addition, if desired, co-initiators and/or sensitizers.

**7. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, which comprises using as~~ where the UV absorber is a hydroxyphenyl-benzotriazole, hydroxyphenylbenzophenone, oxalic acid amide, triazine, oxalanilide, cyanoacrylate, salicylic acid ~~and/or~~ hydroxyphenylpyrimidine.

**8. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, which comprises applying a~~ wherein the synergist, which is a sterically hindered amine, an amino ether (>NOR compound), a benzoxazine ~~and/or~~ a thioether.

**9. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, which comprises applying a~~ using the ethylenically unsaturated compound in the form of a monomer, oligomer ~~and/or~~ polymer.

**10. (currently amended)** A process according to ~~either claim 9 or claim 10~~, wherein the ethylenically unsaturated monomers, oligomers ~~and/or~~ polymers are mono-, di-, tri-, tetra- or multi-functional vinyl ethers, acrylates ~~and/or~~ methacrylates.

**11. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, which comprises using as~~ wherein the plasma is gas an inert gas or a mixture of inert gas and reactive gas.

**12. (currently amended)** A process according to claim 11, wherein ~~the gas as plasma gas, or as a mixture of inert gas and reactive gas, there is used air~~ [[, ]] is H<sub>2</sub>, N<sub>2</sub>, He, Ar, Kr, Xe, O<sub>2</sub> and/or H<sub>2</sub>O.

**13. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, wherein the liquid is applied~~ used in process step b), which liquid contains the initiators in an amount of approximately from 0.01 to 20% by weight [[, ]] ~~especially approximately from 0.1 to 5% by weight.~~

**14. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, wherein the liquid is applied~~ used in process step b), which liquid contains the UV absorbers in an amount of approximately from 0.1 to 99% by weight [[, ]] ~~especially approximately from 0.1 to 50% by weight.~~

**15. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, wherein the liquid is applied~~ used in process step b), which liquid contains the ethylenically unsaturated compound in an amount of approximately from 0.1 to 50% by weight [[, ]] ~~especially approximately from 0.1 to 30% by weight.~~

**16. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims, wherein the liquid is applied~~ used in process step b), which liquid comprises additives selected from the group consisting of ~~customary in the coatings industry, especially~~ defoamers, emulsifiers, surfactants, anti-fouling agents and/or wetting agents.

**17. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims~~, which comprises forming the UV absorber layer in a thickness, in the dry state, from a monomolecular layer up to 2 mm ~~[[, ]] especially in a thickness of approximately from 1 to 1000 µm.~~

**18. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims~~, wherein in process step c), heating is carried out in an oven, with warm gases, heated rollers, IR radiators ~~and/or~~ with microwaves in order to activate the initiator, a drying step optionally being carried out beforehand.

**19. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims~~, wherein the irradiation in process step c) is carried out using electromagnetic rays of a wavelength of from 200 nm to 20 000 nm or using electron beams, a drying step optionally being carried out beforehand.

**20. (currently amended)** A process according to claim 1 ~~at least one of the preceding claims~~, which comprises carrying out process step c) in an inert gas atmosphere or in air.

**21. (currently amended)** A substrate having a UV absorber layer ~~[[s]]~~, ~~obtainable in accordance with a process according to at least one of the preceding claims~~ according to a process which comprises

a) allowing a low-temperature plasma, a corona discharge or high-energy radiation to act on an inorganic or organic substrate,

b) applying to the treated inorganic or organic substrate at least one free-radical-forming initiator and at least one UV absorber containing at least one ethylenically unsaturated group, and, optionally in the form of melts, solutions, suspensions or emulsions, at least one synergist and/or at least one ethylenically unsaturated compound and

c) heating the coated substrate and/or irradiating it with electromagnetic waves.

**22. (currently amended)** A substrate according to claim 21, wherein the UV absorber layer has an optical density of approximately from 0.1 to 6~~[[, ]]~~~~especially approximately from 0.5 to [[4,]]~~ in the absorption maximum of the UV absorber.

**23. (original)** A substrate according to claim 22, wherein the optical density is approximately from 1 to 3.

**24. (currently amended)** A substrate according to claim 21~~any one of claims 21 to 23~~, wherein the proportion of UV absorber in the UV absorber layer is at least approximately 10% by weight~~[[,]]~~  
~~especially at least approximately 15% by weight.~~

**25. (original)** A substrate according to claim 24, wherein the proportion of UV absorber is at least approximately 20% by weight.

**26. (currently amended)** ~~The use of the substrate according to at least one of the preceding claims 21 to 25 as a protecting layer and/or filter, especially for optical purposes~~A substrate according to claim 21 which is an optical filter.